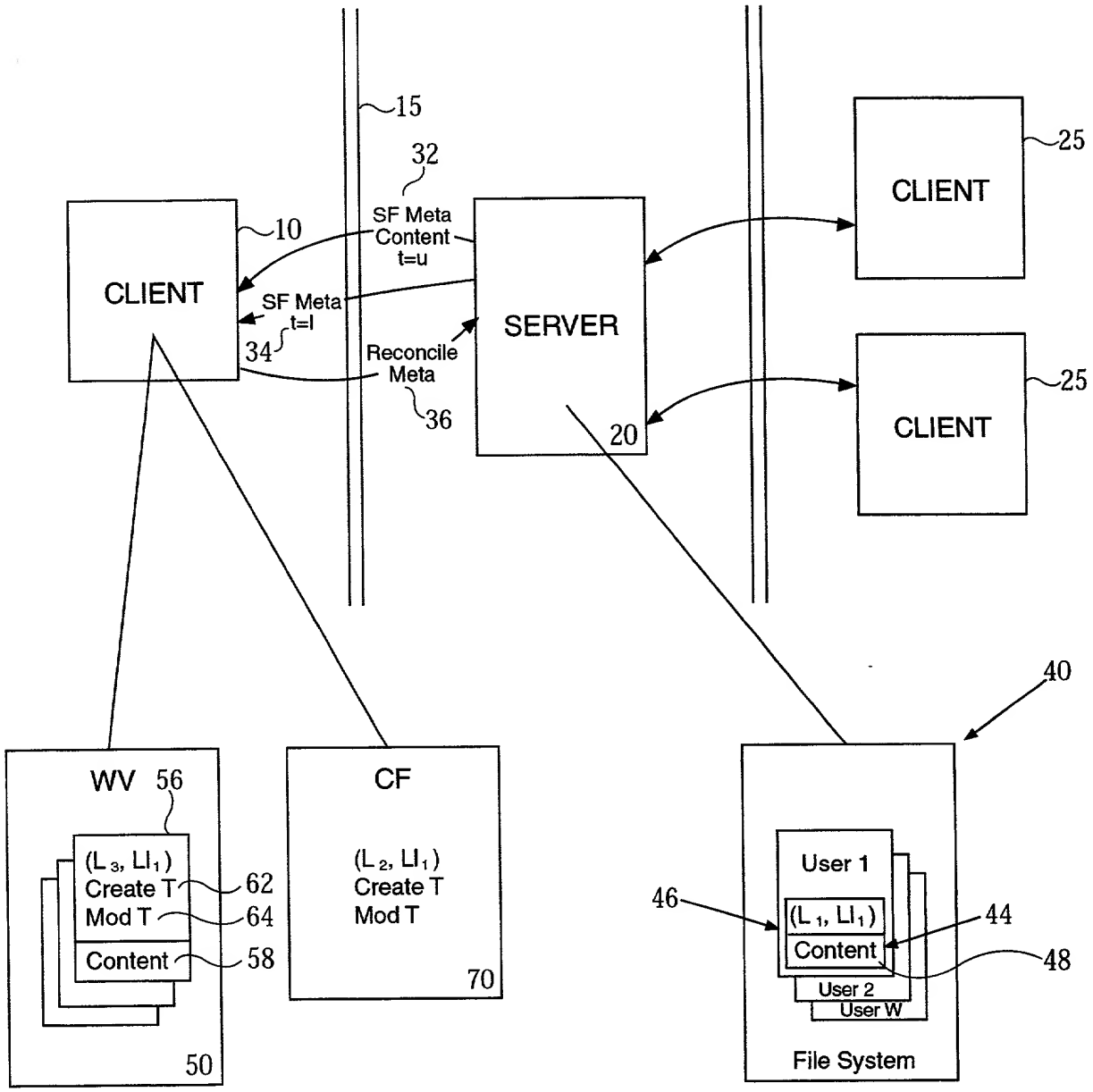
15
32
SF Meta
Content
t=u
10
CLIENT
SF Meta
t=l
34
Reconcile
Meta
36
SERVER
20
CLIENT
25
CLIENT
25
40
WV 56
(L 3, LI 1)
Create T
Mod T
Content
62
64
58
50
CF
(L 2, LI 1)
Create T
Mod T
70
User 1
(L 1, LI 1)
Content
User 2
User W
File System
46
44
48

FIGURE 1

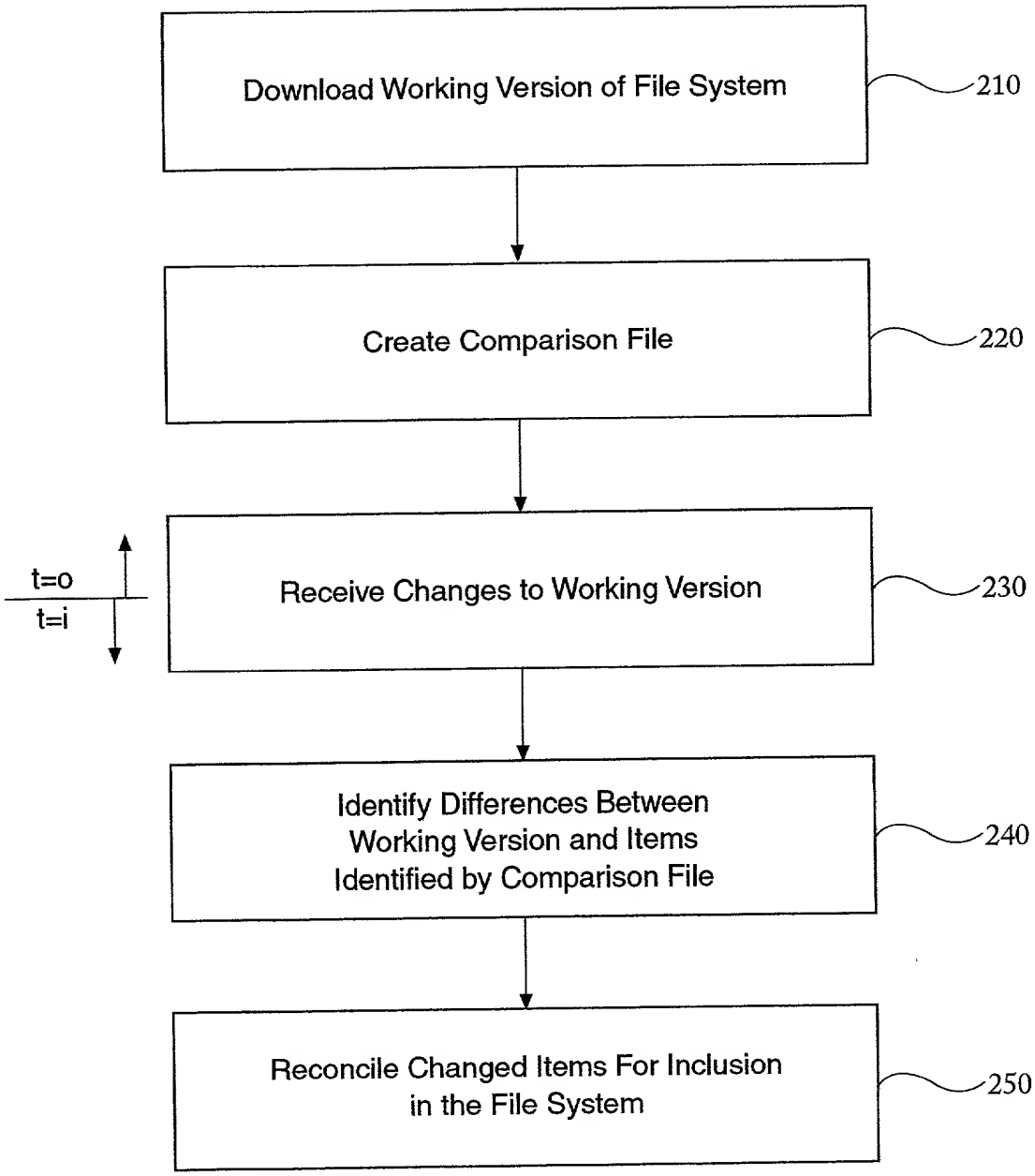
Download Working Version of File System
210
Create Comparison File
220
t=o
t=i
Receive Changes to Working Version
230
Identify Differences Between Working Version and Items Identified by Comparison File
240
Reconcile Changed Items For Inclusion in the File System
250

FIGURE 2

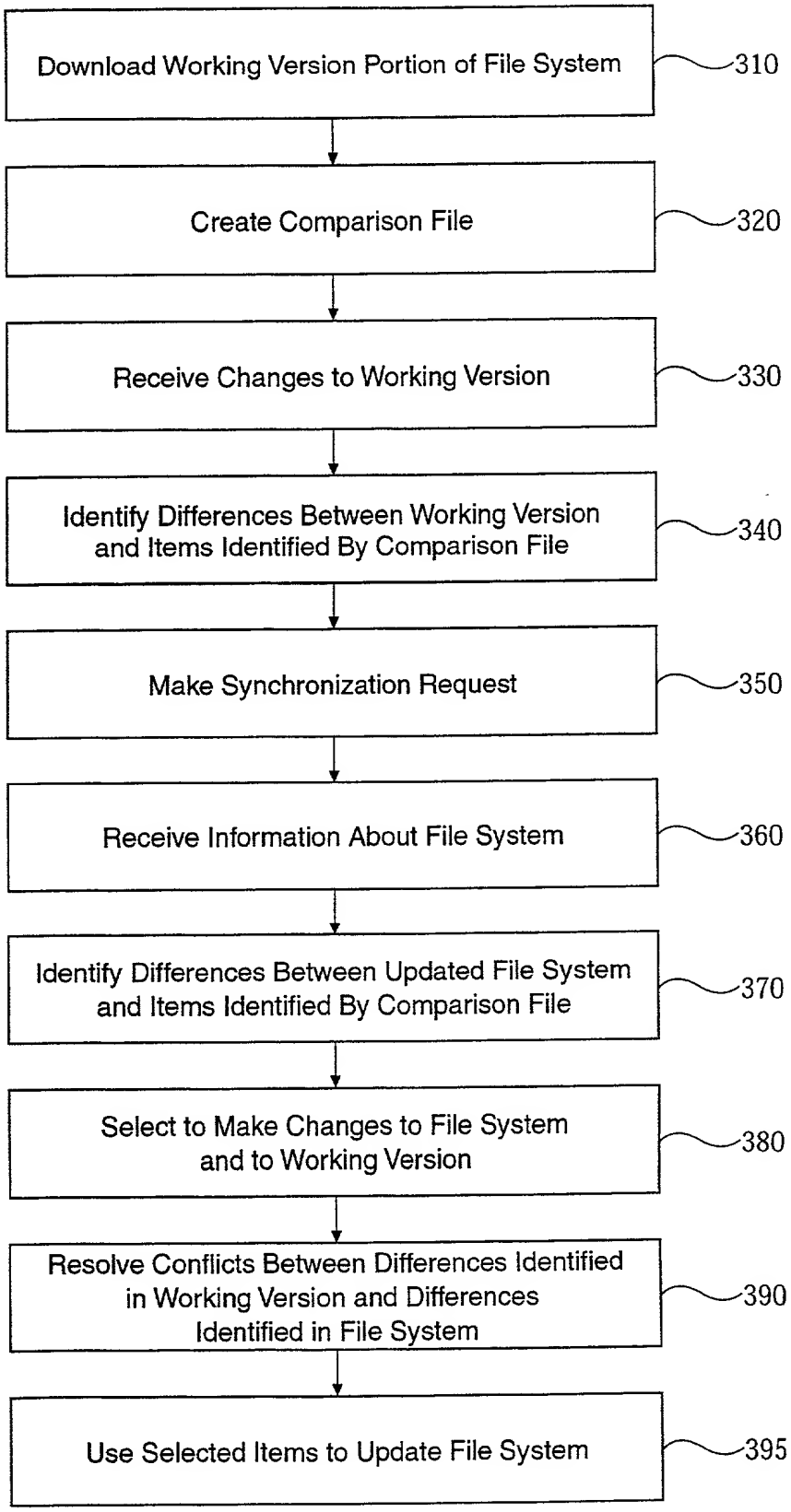
Download Working Version Portion of File System
310
Create Comparison File
320
Receive Changes to Working Version
330
Identify Differences Between Working Version and Items Identified By Comparison File
340
Make Synchronization Request
350
Receive Information About File System
360
Identify Differences Between Updated File System and Items Identified By Comparison File
370
Select to Make Changes to File System and to Working Version
380
Resolve Conflicts Between Differences Identified in Working Version and Differences Identified in File System
390
Use Selected Items to Update File System
395

FIGURE 3

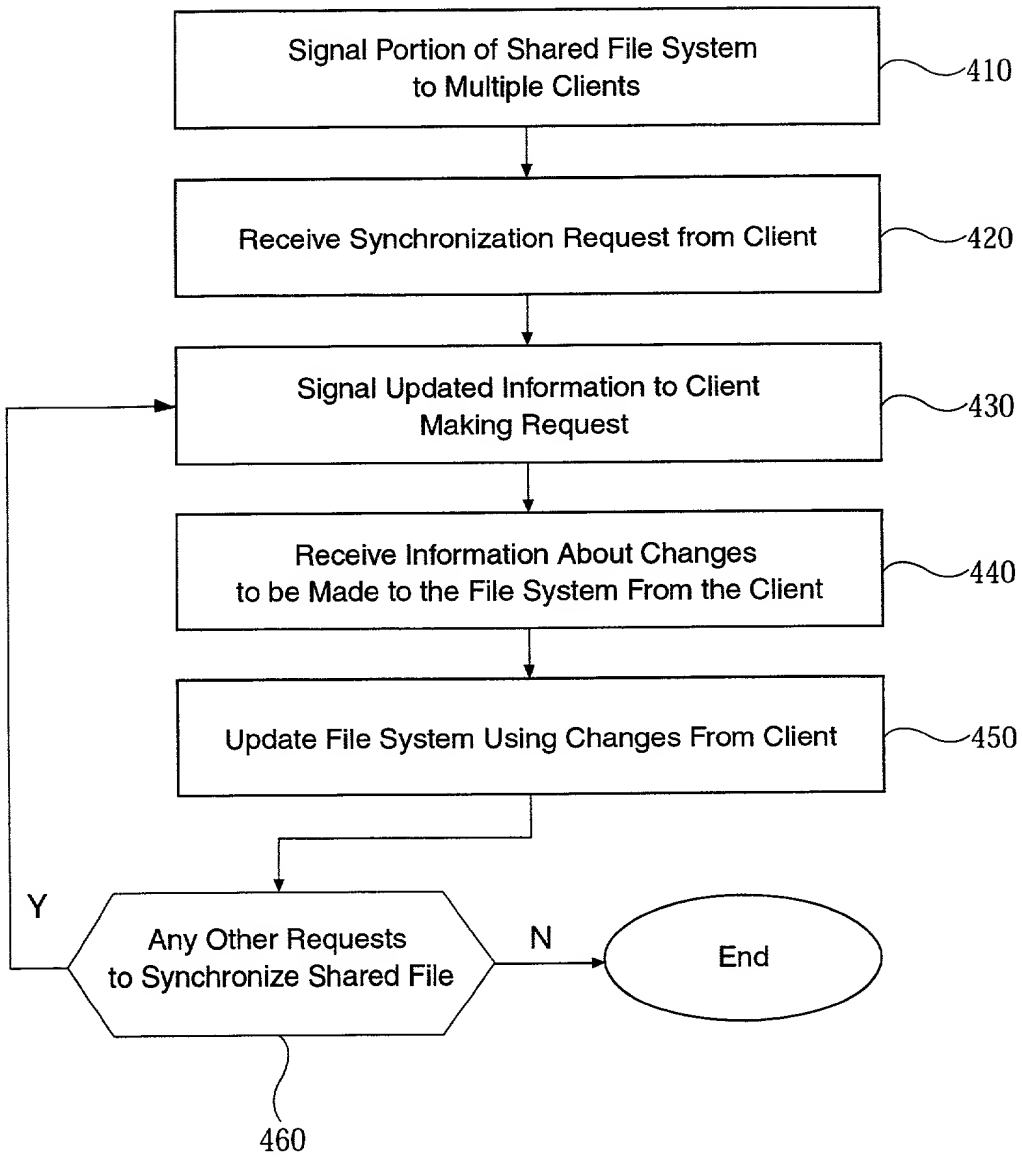
Signal Portion of Shared File System to Multiple Clients
410
Receive Synchronization Request from Client
420
Signal Updated Information to Client Making Request
430
Receive Information About Changes to be Made to the File System From the Client
440
Update File System Using Changes From Client
450
Y
Any Other Requests to Synchronize Shared File
N
End
460

FIGURE 4

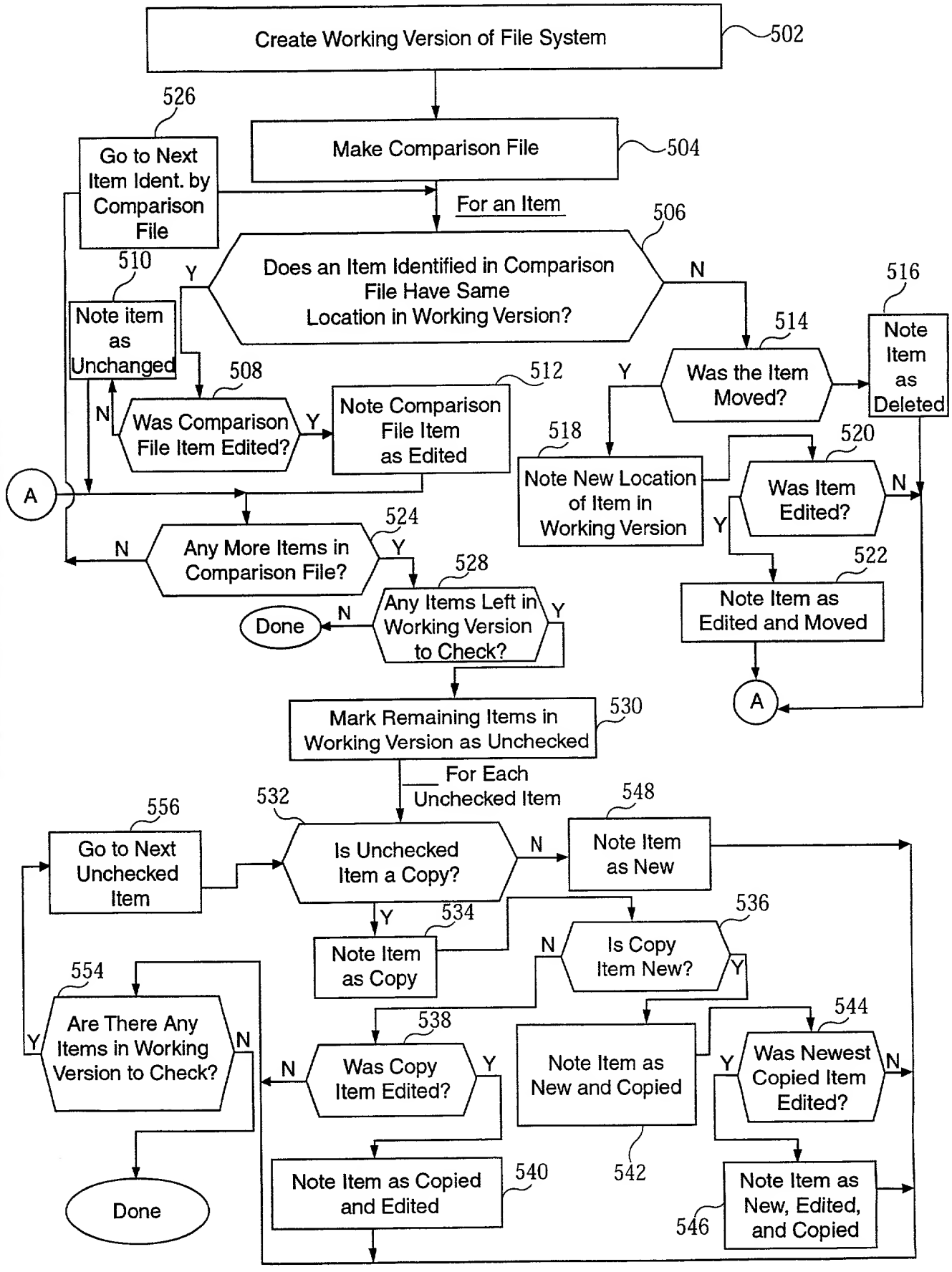
Create Working Version of File System
502
Make Comparison File
504
For an Item
506
Does an Item Identified in Comparison File Have Same Location in Working Version?
Y
N
Go to Next Item Ident. by Comparison File
526
Note item as Unchanged
510
Was Comparison File Item Edited?
508
Note Comparison File Item as Edited
512
Was the Item Moved?
514
Note Item as Deleted
516
Note New Location of Item in Working Version
518
Was Item Edited?
520
Note Item as Edited and Moved
522
A
Any More Items in Comparison File?
524
Any Items Left in Working Version to Check?
528
Done
Mark Remaining Items in Working Version as Unchecked
530
For Each Unchecked Item
532
Is Unchecked Item a Copy?
Note Item as New
548
Go to Next Unchecked Item
556
Note Item as Copy
534
Is Copy Item New?
536
Are There Any Items in Working Version to Check?
554
Was Copy Item Edited?
538
Note Item as New and Copied
542
Was Newest Copied Item Edited?
544
Note Item as Copied and Edited
540
Note Item as New, Edited, and Copied
546
Done

FIGURE 5

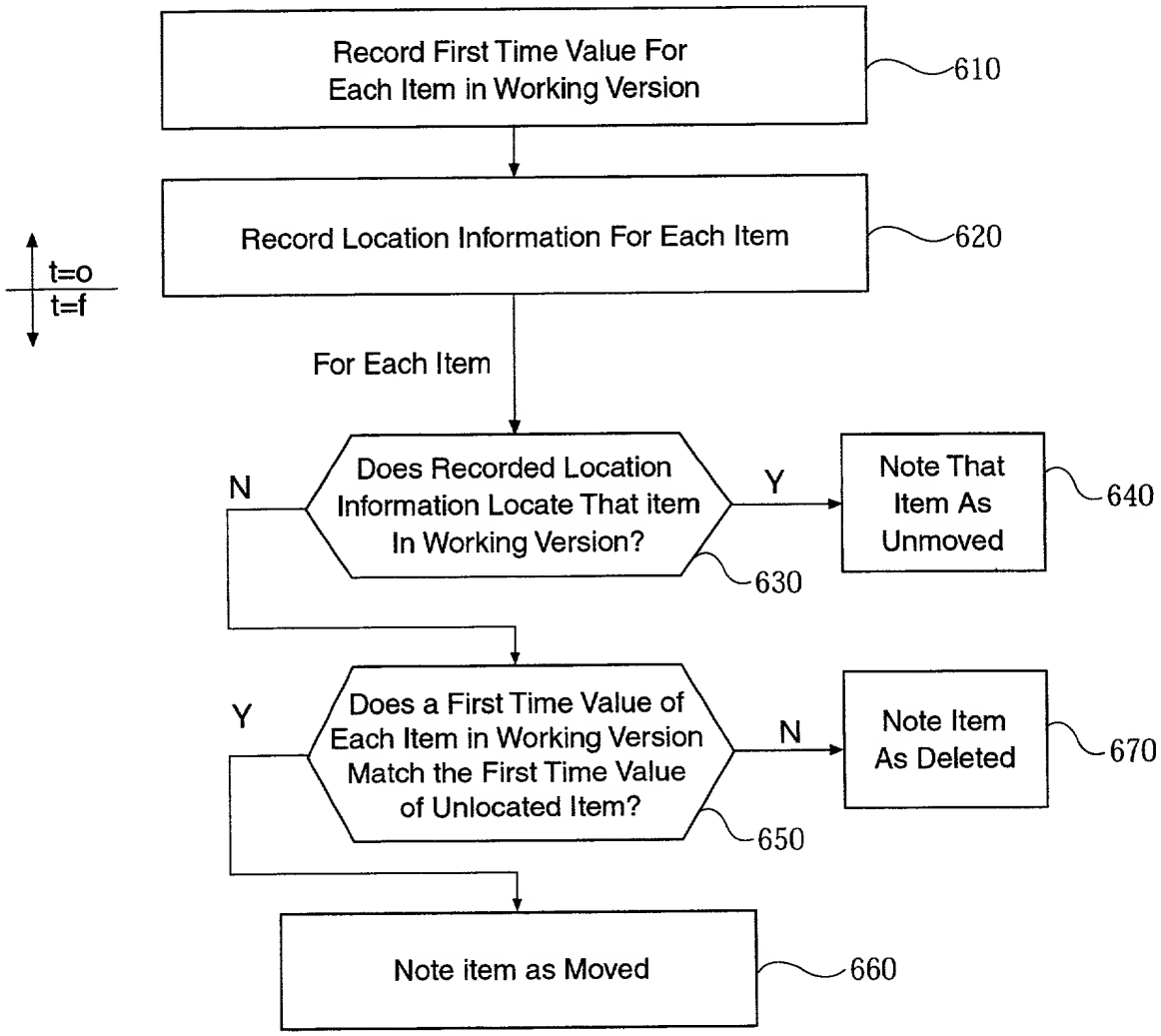
Record First Time Value For Each Item in Working Version
610
Record Location Information For Each Item
620
t=o
t=f
For Each Item
Does Recorded Location Information Locate That item In Working Version?
630
N
Y
Note That Item As Unmoved
640
Does a First Time Value of Each Item in Working Version Match the First Time Value of Unlocated Item?
650
Y
N
Note Item As Deleted
670
Note item as Moved
660

FIGURE 6

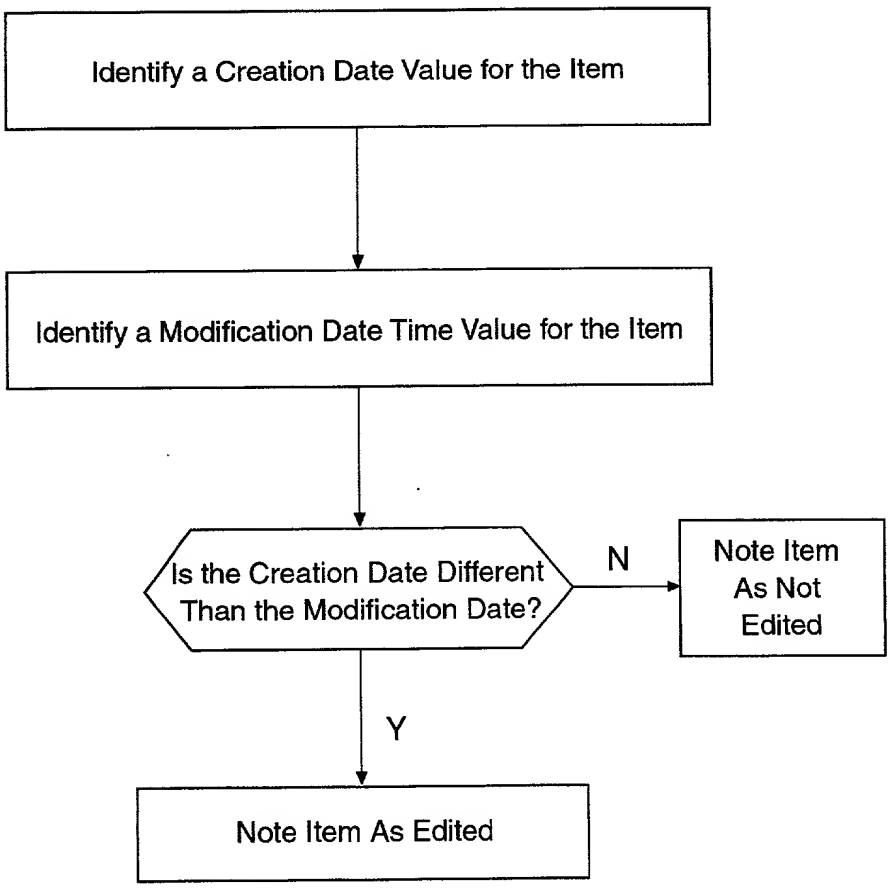
Identify a Creation Date Value for the Item
Identify a Modification Date Time Value for the Item
Is the Creation Date Different Than the Modification Date?
N
Note Item As Not Edited
Y
Note Item As Edited

FIGURE 7

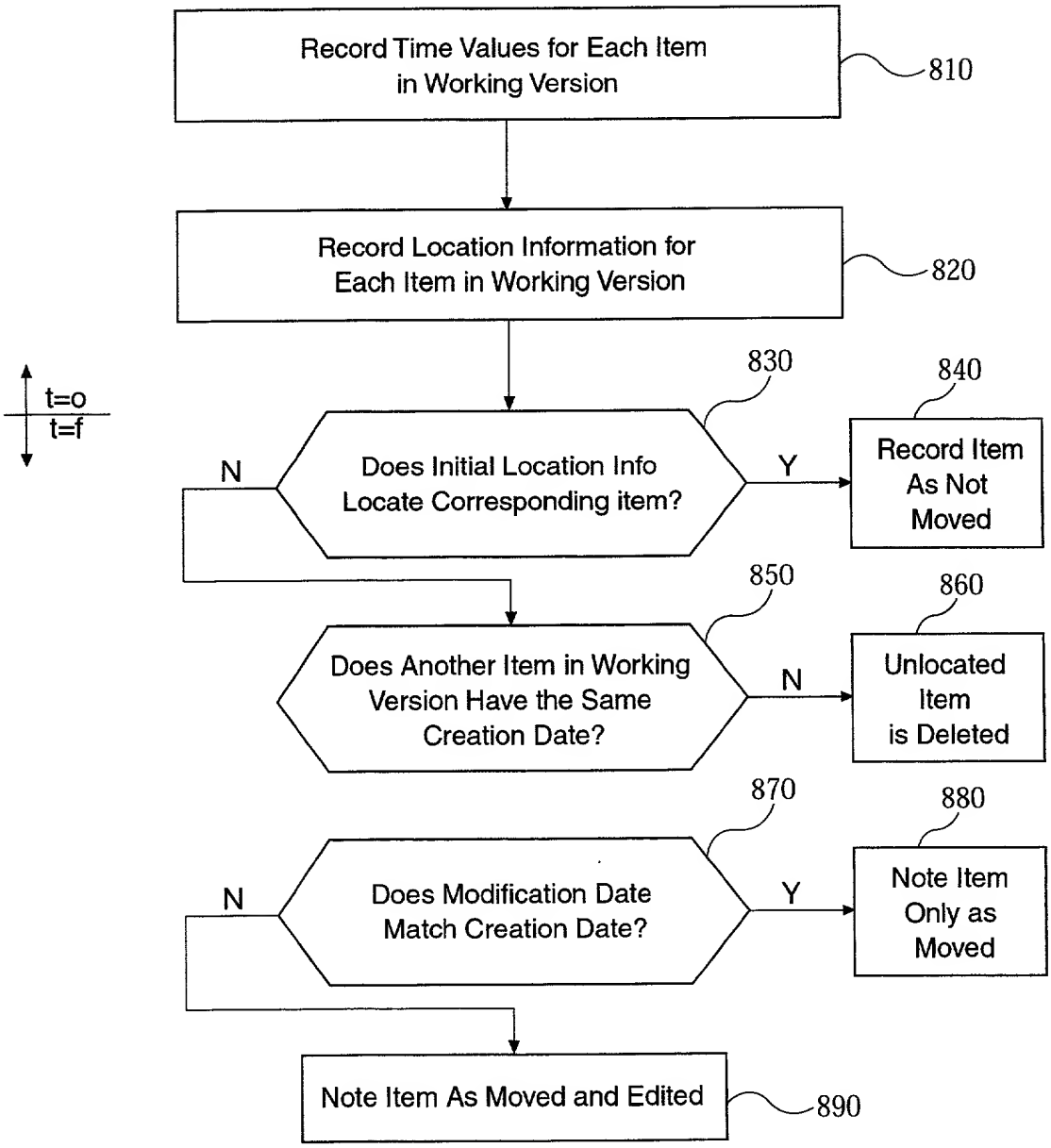
Record Time Values for Each Item in Working Version
810
Record Location Information for Each Item in Working Version
820
t=o
t=f
830
840
N
Does Initial Location Info Locate Corresponding item?
Y
Record Item As Not Moved
850
860
Does Another Item in Working Version Have the Same Creation Date?
N
Unlocated Item is Deleted
870
880
N
Does Modification Date Match Creation Date?
Y
Note Item Only as Moved
Note Item As Moved and Edited
890

FIGURE 8

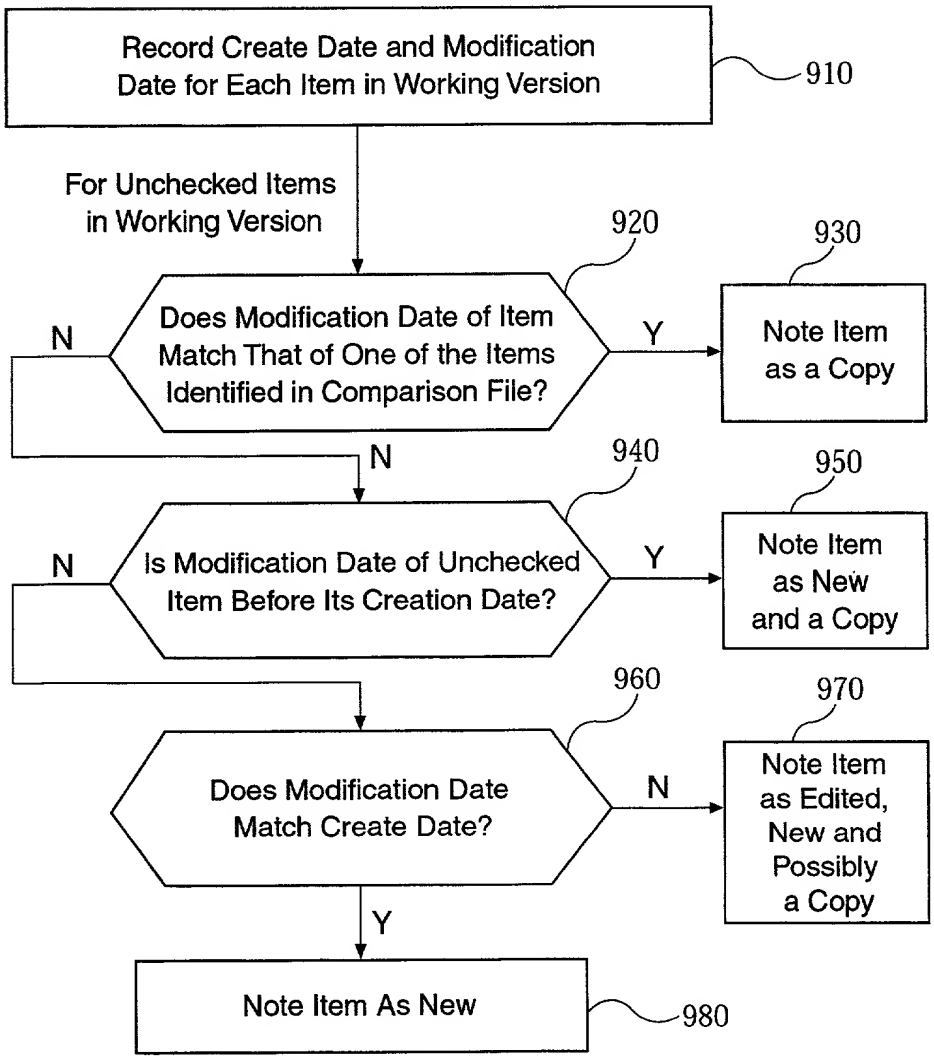
Record Create Date and Modification Date for Each Item in Working Version
910
For Unchecked Items in Working Version
920
Does Modification Date of Item Match That of One of the Items Identified in Comparison File?
N
Y
930
Note Item as a Copy
N
940
Is Modification Date of Unchecked Item Before Its Creation Date?
N
Y
950
Note Item as New and a Copy
960
Does Modification Date Match Create Date?
N
970
Note Item as Edited, New and Possibly a Copy
Y
Note Item As New
980

FIGURE 9

Express Mail Label No. EL 929 435 435 US

Computer A		Computer B	
File Name	Action Required	File Name	Action Required
A_1	${}_xM_y$	B_1	${}_AC_B$
A_2	E	B_2	E
•	•	•	•
•	•	•	•
•	•	•	•
A_n	$(N)_xC_y$	B_n	D

USER INTERFACE

FIGURE 10

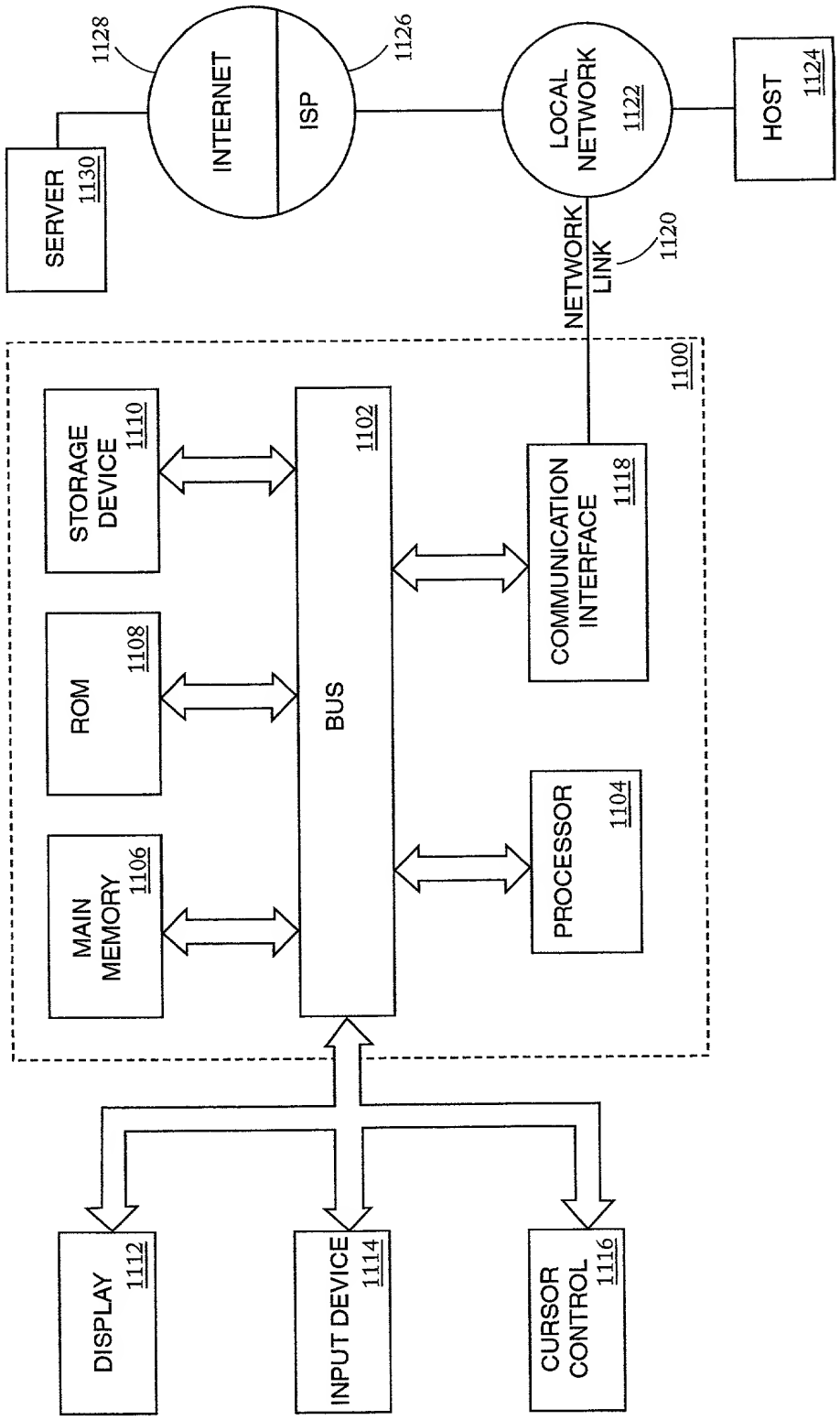
1128
INTERNET
ISP
1126
LOCAL NETWORK
1122
HOST
1124
SERVER
1130
NETWORK LINK
1120
1100
STORAGE DEVICE
1110
1102
BUS
COMMUNICATION INTERFACE
1118
ROM
1108
PROCESSOR
1104
MAIN MEMORY
1106
DISPLAY
1112
INPUT DEVICE
1114
CURSOR CONTROL
1116

FIGURE 11